

**TABLE 1**  
**TIER 1 SURFACE SOIL (0-2 ft) RBSLs (mg/kg)**  
**(includes default RBSLs)**

This table applies to contaminated surface soil from 0-2 feet below ground surface. For VPH compounds at UST sites, default RBSLs (**bold**) are used to determine if a release has occurred at a site. Default RBSLs apply to the entire soil column and always apply in the absence of adequate information. For EPH compounds the 50 ppm screening level is used to determine whether a release has occurred at UST sites. Distance to water is from the sample depth to the water table.

| Distance to groundwater   |   | < 10 feet to groundwater |    |            |    | 10-20 feet to groundwater |    |            |    | > 20 feet to groundwater |    |            |    |
|---|---|--------------------------|----|------------|----|---------------------------|----|------------|----|--------------------------|----|------------|----|
| Chemical  | E | Residential              | B  | Commercial | B  | Residential               | B  | Commercial | B  | Residential              | B  | Commercial | B  |
| <b>For Gasoline and Light Hydrocarbons measured using the Massachusetts Method for Volatile Petroleum Hydrocarbons (VPH)</b>  |   |                          |    |            |    |                           |    |            |    |                          |    |            |    |
| C5-C8 Aliphatics  | n | <b>10</b>                | dc | 50         | dc | 10                        | dc | 50         | dc | 10                       | dc | 50         | dc |
| C9-C12 Aliphatics   | n | <b>70</b>                | dc | 300        | dc | 70                        | dc | 300        | dc | 70                       | dc | 300        | dc |
| C9-C10 Aromatics  | n | <b>8</b>                 | l  | 8          | l  | 10                        | dc | 30         | l  | 10                       | dc | 40         | l  |
| MTBE  | n | <b>0.1</b>               | l  | 0.1        | l  | 0.2                       | l  | 0.2        | l  | 0.3                      | l  | 0.3        | l  |
| Benzene   | c | <b>0.05</b>              | l  | 0.05       | l  | 0.1                       | l  | 0.1        | l  | 0.2                      | l  | 0.2        | l  |
| Toluene   | n | <b>10</b>                | l  | 10         | l  | 40                        | l  | 40         | l  | 60                       | l  | 60         | l  |
| Ethylbenzene  | n | <b>10</b>                | l  | 10         | l  | 40                        | l  | 40         | l  | 60                       | l  | 60         | l  |
| Xylenes   | n | <b>20</b>                | dc | 80         | dc | 20                        | dc | 80         | dc | 20                       | dc | 80         | dc |
| Naphthalene   | n | <b>9</b>                 | l  | 9          | l  | 30                        | l  | 30         | l  | 50                       | l  | 50         | l  |
| <b>For Diesel and Heavy Hydrocarbons measured using the Massachusetts Method for Extractable Petroleum Hydrocarbons (EPH)</b> |   |                          |    |            |    |                           |    |            |    |                          |    |            |    |
| C9-C18 Aliphatics   | n | 100                      | dc | 600        | dc | 100                       | dc | 600        | dc | 100                      | dc | 600        | dc |
| C19-C36 Aliphatics  | n | 2,500                    | bu | 5,000      | bu | 2,500                     | bu | 5,000      | bu | 2,500                    | bu | 5,000      | bu |
| C11-C22 Aromatics   | n | 70                       | dc | 100        | l  | 70                        | dc | 300        | dc | 70                       | dc | 300        | dc |
| Acenaphthene  | n | 200                      | l  | 200        | l  | 500                       | l  | 500        | l  | 600                      | dc | 800        | l  |
| Anthracene  | n | 3,000                    | dc | 4,000      | l  | 3,000                     | dc | 10,000     | l  | 3,000                    | dc | 20,000     | l  |
| Benz(a)anthracene   | c | 0.8                      | dc | 6          | dc | 0.8                       | dc | 6          | dc | 0.8                      | dc | 6          | dc |
| Benzo(a)pyrene  | c | 0.08*                    | dc | 0.6        | dc | 0.08*                     | dc | 0.6        | dc | 0.08*                    | dc | 0.6        | dc |
| Benzo(b)fluoranthene  | c | 0.8                      | dc | 6          | dc | 0.8                       | dc | 6          | dc | 0.8                      | dc | 6          | dc |
| Benzo(k)fluoranthene  | c | 8                        | dc | 60         | dc | 8                         | dc | 60         | dc | 8                        | dc | 60         | dc |
| Chrysene  | c | 80                       | dc | 600        | dc | 80                        | dc | 600        | dc | 80                       | dc | 600        | dc |
| Dibenzo(a,h)anthracene  | c | 0.08*                    | dc | 0.6        | dc | 0.08*                     | dc | 0.6        | dc | 0.08*                    | dc | 0.6        | dc |
| Fluoranthene  | n | 400                      | dc | 1,000      | l  | 400                       | dc | 4,000      | l  | 400                      | dc | 5,000      | l  |
| Fluorene  | n | 200                      | l  | 200        | l  | 400                       | dc | 600        | l  | 400                      | dc | 900        | l  |
| Indeno(1,2,3-cd)pyrene  | c | 0.8                      | dc | 6          | dc | 0.8                       | dc | 6          | dc | 0.8                      | dc | 6          | dc |
| Naphthalene   | n | 9                        | l  | 9          | l  | 30                        | l  | 30         | l  | 50                       | l  | 50         | l  |
| Pyrene  | n | 300                      | dc | 5,000      | l  | 300                       | dc | 6,000      | dc | 300                      | dc | 6,000      | dc |

Notes:

E = Effect is either:                    n = non-carcinogenic and direct contact RBSLs are based on a hazard quotient of 0.125 for a total hazard index which does not exceed 1, or  
     c = carcinogenic and direct contact RBSLs are based on a cancer risk of  $1 \times 10^{-6}$  for a total cancer risk which does not exceed  $1 \times 10^{-5}$ .

B = Basis is the most conservative of:            l = leaching from soil to groundwater;  
     dc = residential direct contact including ingestion, inhalation, and dermal; or  
     bu = adversely affects beneficial uses (foul odor or taste).

If the leaching pathway is not the most conservative basis, residential or commercial RBSLs apply to surface soil.

\* = The best achievable practical quantitation limit (0.33) is greater than the RBSL; therefore, if the compound is detected, additional evaluation may be necessary.

**DEQ's RBCA policy includes a ceiling concentration of 100 mg/kg for the total of the gasoline range fractions and 2,500 mg/kg for the total of the diesel range fractions in residential soil.**

**DEQ's RBCA policy includes a ceiling concentration of 500 mg/kg for the total of the gasoline range fractions and 5,000 mg/kg for the total of the diesel range fractions in commercial soil.**